

# Garbage Collector benchmark

Benchmark project for measuring the Garbage Collector performance in various configurations.

There are 4 test scenarios:

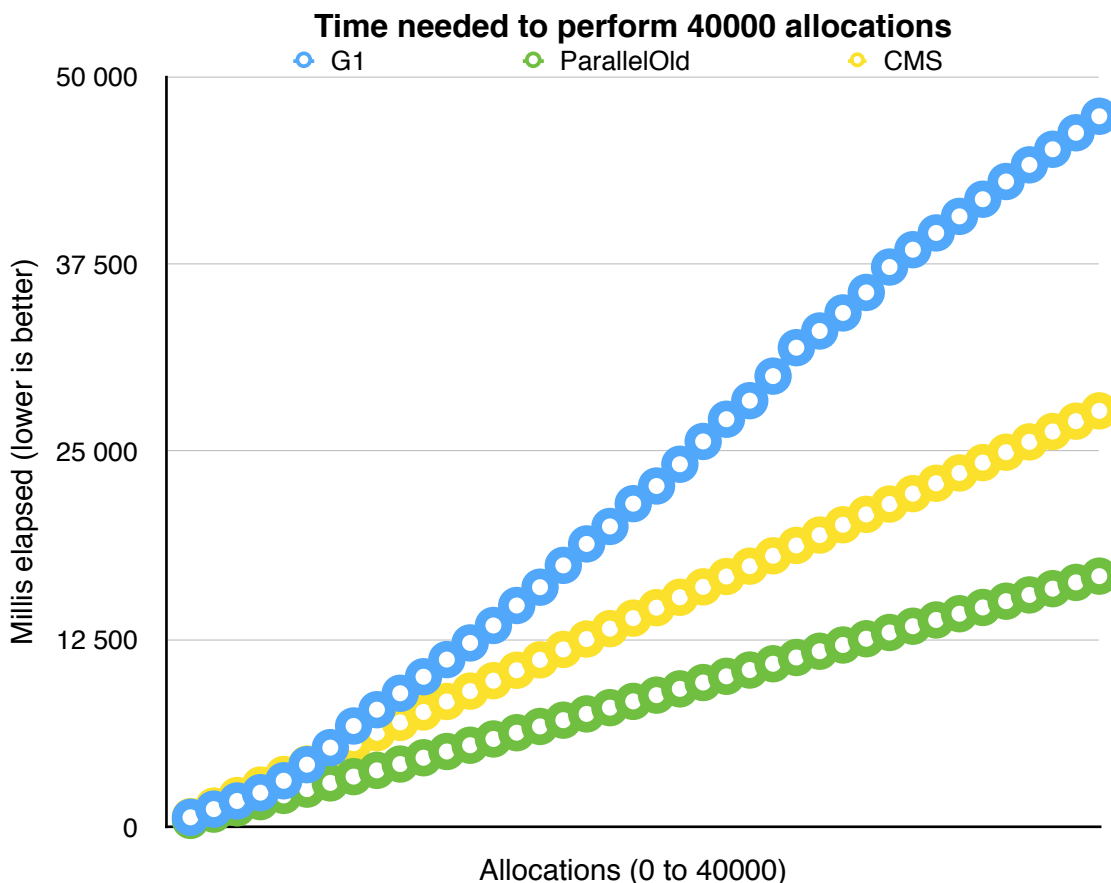
- allocating objects with fixed size using only 1 thread
- allocating objects with fixed size using multiple threads
- allocating objects with varying size using only 1 thread
- allocating objects with varying size using multiple threads

Each one ran using several GC configurations:

- GC type - ParallelOld vs CMS vs G1
- heap area - 128, 256, 512 MB

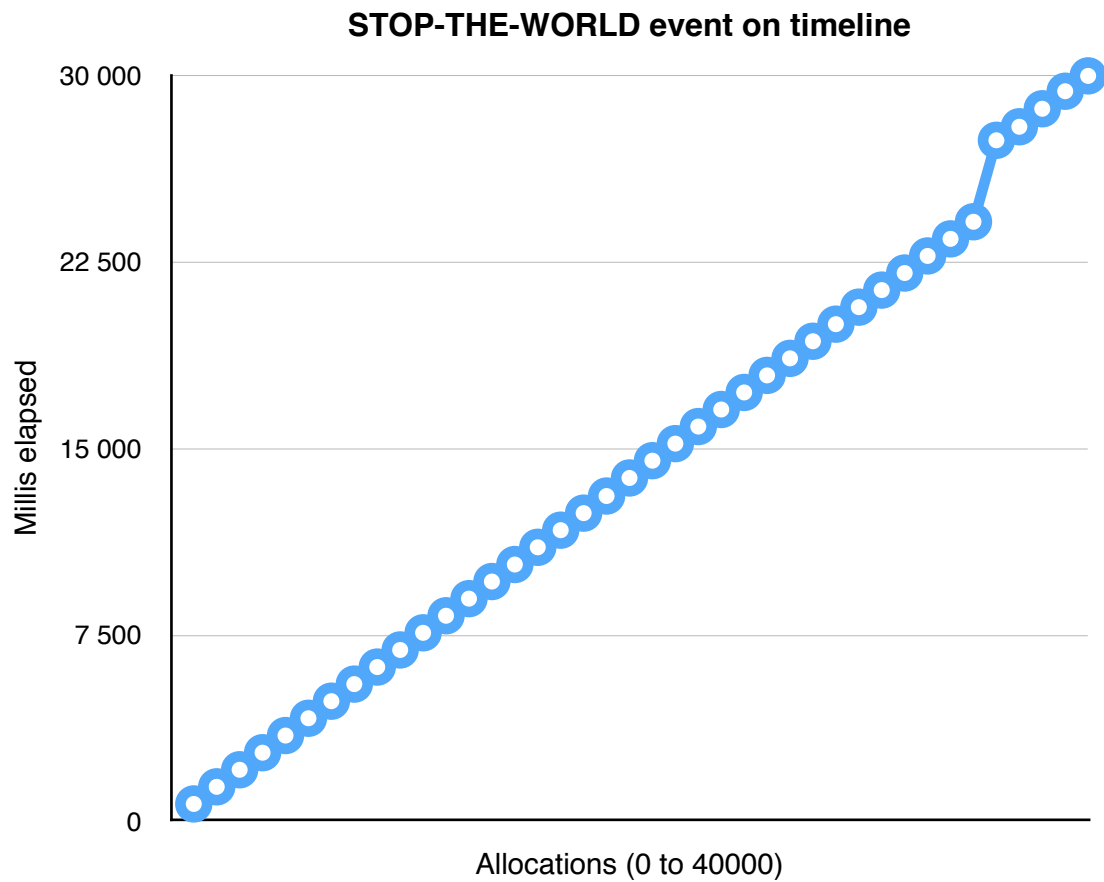
Specific, step-by-step results can be obtained by launching `benchmark.sh` shell script. 36 CSV files are generated. Instead of analyzing the deep details I would like to present you some of the most important thoughts.

Please look at the image below:



It can be clearly seen that ParallelOld GC type is the most suitable one for the big throughput, which we test in our benchmark. On the other hand G1 algorithm looks like the worst option for this particular test scenario.

Another interesting aspect of our results is the STOP-THE-WORLD event.  
I managed to capture the specific moment on the chart:



As we can see, time goes on, but no new allocations are made about 25000th millisecond